<u>CLAIMS:</u>

1.   A method for determining central systolic pressure, including the steps of:

determining a time t from pressure wave foot to peak in a central carotid artery;

measuring a radial pressure waveform; and

locating the pressure wave foot in the radial pressure waveform and determining the corresponding pressure at time t after the wave foot;

wherein said corresponding pressure is substantially the central systolic pressure.

2.   A method for determining central systolic pressure, including the steps of:

measuring a radial pressure waveform;

locating the time of start of a component of said waveform attributable to lower body wave reflection; and

determining the central systolic pressure by taking the value of the pressure waveform at said time.

3.   The method according to claim 2, wherein said step of locating the time includes the following steps:

determining the peak of said measured waveform;

determining if there is a minimum of a first derivative of said waveform before said peak;

if a minimum is determined then the time is located at the occurance of the determined peak;

if no minimum is determined then:

searching for a first zero crossing of a second derivative of said waveform from positive to negative after said peak and before incisura;

if a first zero crossing is found then the time is located at said first zero crossing;

if a first zero crossing is not found then:

searching for a zero crossing of a third derivative of said waveform from positive to negative before said peak;

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if a zero crossing is found then the time is located at the occurance of the determined peak;

if a zero crossing is not found then:

searching for a first zero crossing of the third derivative from positive to negative after said peak and locating the time at said zero crossing.

4.   The method according to claim 3, wherein said step of determining if there is a minimum of a first derivative of said waveform before said peak includes determining if there is a zero crossing of a second derivative from negative to positive before said peak.

5.   An apparatus programmed for determining central systolic pressure according to the method of any one of the preceding claims.

6.   A software product for programming a device to determine central systolic pressure according to the method of any one of claims 1 to 4.